

NOTES ON AUSTRALASIAN TANYDERIDAE, WITH DESCRIPTION OF A NEW SPECIES OF *RADINODERUS* HANDL. (DIPTERA).

By DONALD H. COLLESS, Division of Entomology, C.S.I.R.O., Canberra.

(One Text-figure.)

[Read 24th October, 1962.]

*Synopsis.*

*Radinoderus ochroceratus*, sp. nov., is described from the Solomon Islands and notes given on three other Australian species of Tanyderidae.

The Australian National Insect Collection, Canberra, includes a number of specimens of Australian Tanyderidae and a single specimen of an apparently new species from Bougainville, in the Solomon Islands. The latter, which is closely allied to *Radinoderus holwayi* Alex. from Guadalcanal, is described below together with notes on the Australian specimens.

*RADINODERUS OCHROCERATUS*, sp. nov.

*Type.* Unique holotype female (Bougainville, 2.iv.45, F. N. Ratcliffe) to be placed in the Bishop Museum, Hawaii.

*Type locality.* Bougainville, Solomon Islands.

*Female.* Wing length 18.9 mm.; abdomen 18.2 mm. Closely resembling *R. holwayi* (see Alexander, 1946), differing as follows:

Antenna with 24 segments, flagellum pale yellow, the segments minutely darkened apically; segment 2 brown; segment 1 dark-brown.

Pronotum uniformly brown. Mesonotum more or less uniformly brown, the stripes faintly differentiated by a median, and two sublateral, slightly paler broad lines; lateral lobes (immediately behind wing roots) greyish pruinose; scutellum dark centrally and posteriorly, with a pair of antero-lateral grey spots which extend onto the scutum. Pleura with small grey area across the posterior margin of the sternopleurite, immediately below the mid-pleural pit, and another larger grey area dorsally on the pteropleurite; pleurotergite slightly greyish dorsally; postnotum more or less uniformly brown, slightly paler at the antero-lateral angles.

Wing as in Figure 1b; costal cell with median pale area (opposite fork of  $R_s$ ) shorter than adjacent dark areas; crossvein m angulated, with a basally directed spur. The forked apex of vein  $R_1$  suggests that the anterior portion may actually represent the free tip of  $Sc_2$ , and the spur, the true apex of  $R_1$ .

Abdomen brown, darker on the apical segments. Tergite 1 with a pair of grey, latero-basal spots and a faint, greyish, subapical band; tergites 2-5 each with a pair of grey lateral spots, placed a little short of the centre, and a pair of rather larger sublateral spots, placed a little past the centre; tergite 6 similar, but the lateral spots sub-basal. Cerci dark brown.

Some of the above features no doubt represent individual variation only; the essential differences are the yellow antennae, and abdominal tergites with four pale spots instead of two. The close resemblance to *holwayi*, and the apparent geographic separation, suggest that *ochroceratus* may eventually prove to be a subspecies, but, lacking more detailed data, I prefer to treat it for the present as a species. These two forms, and *R. pictipes* Alex. of New Guinea, form a group characterized by the unusually conspicuous convexity in the apex of cell  $R_s$ .

*Specimen seen.* Holotype only.

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## RADINODERUS OCCIDENTALIS (Alexander).

Alexander, C. P., 1925; Insec. Inscit. Menst., 13: 32. *Tanyderus* (*Radinoderus*) *occidentalis*. Swan River, W. Australia.

The original description was based on a rather imperfect, unique female specimen. I now have three additional females, one in perfect condition. These show a distinctly yellowish-grey pruinose ground colour on the mesonotum and scutellum, and have the postnotum pale laterally. Also, the hypopleuron is greyish, the colour extending down onto the postero-lateral surface of the hind coxa. The legs, which are intact, show that it is the mid-leg which has the most conspicuous dark band on the femur; the tibial spurs are brown, contrasting sharply with the yellow ground colour, while the apical tarsal segments are all brown, rather than yellow.

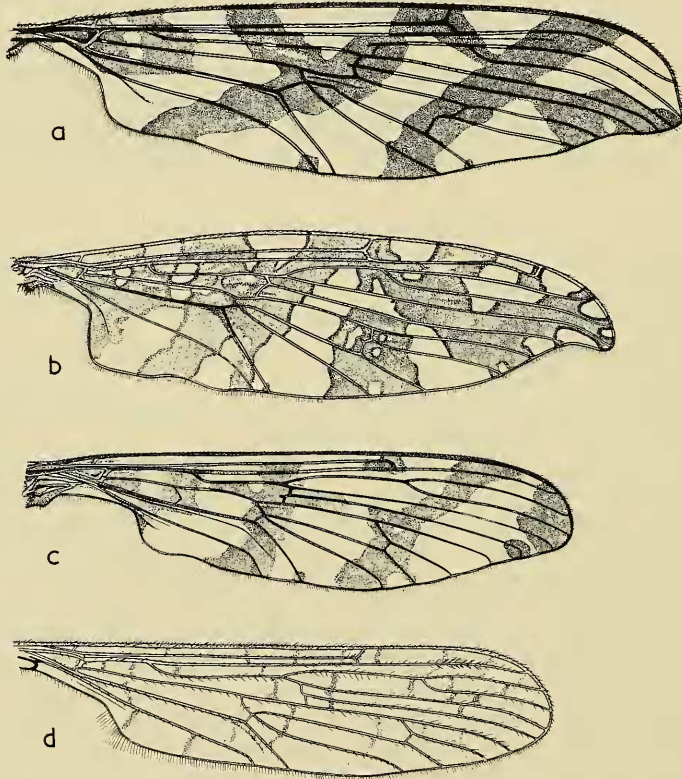


Fig. 1. Wings. (a) *Radinoderus occidentalis* (Alex.). (b) *R. ochroceratus*, sp. nov. (c) *Eutanyderus oreonympha* Alex. (d) *E. wilsoni* Alex. (a-c, female; d, male).

The wing is illustrated in Figure 1a. Two of the three specimens have dark spots at the apices of  $Cu_1$  and  $M_3$  and one of these also has a small dot at the apex of  $R_1$ . One specimen, perhaps teneral, has the dark markings very weakly developed, many of them grey centrally with brown borders.

The abdominal pattern is as follows: general colour brown; tergite 1 with a pair of conspicuous latero-basal yellowish spots; tergites 2-7 each with a pair of elongate, roughly oval yellowish spots, slanted downwards anteriorly, and each surrounded by an irregular zone of dark, velvety brown; the spots are placed a little distad of the centre on segs. 2 and 3, becoming progressively more basal on the posterior segments. Sternites 3-6 (and sometimes 7) with small sublateral spots, placed opposite the tergal spots; sternites 3-5 (and sometimes 6) with a weaker median subapical spot. Ninth sternite pale brown; terminal segments and cerci otherwise black.

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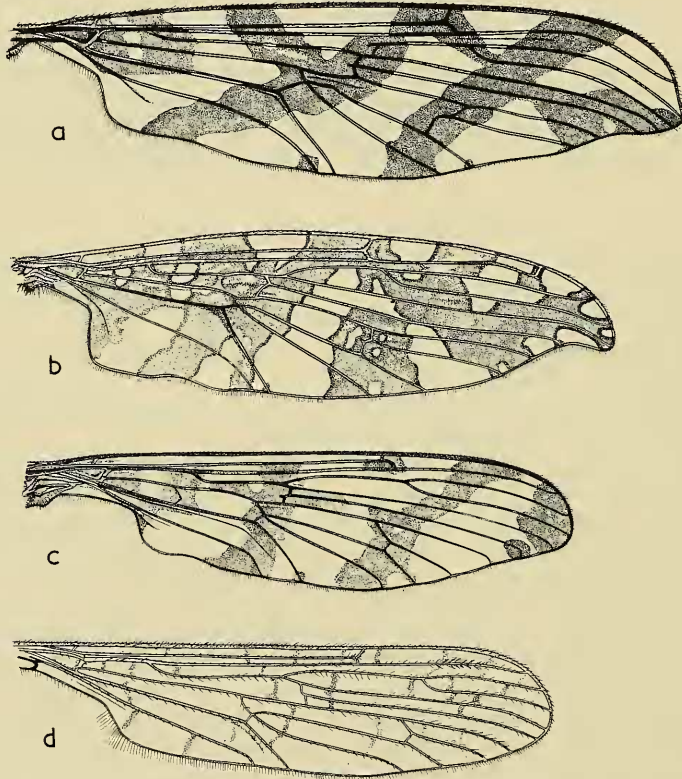


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The type specimen is now in the Macleay Museum, Sydney University.

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EUTANYDERUS OREONYMPHA Alexander.

Alexander, C. P., 1938: *Philipp. J. Sci.*, 66: 221. Mt. Kosciusko, N.S.W.

I have a single female specimen, collected on the same date, and in the same general locality, as the holotype male (presumably by A. L. Tonnoir, whose handwriting is on the label). This shows the following features: Wing 16.2 mm.; abdomen 12.9 mm. Antenna with apical segment subspherical, about one-third the length of the penultimate segment. Wing as illustrated (Fig. 1c), the basal markings differing slightly from the original description. Abdomen generally as described for the male, but better described as follows: tergite 1 brown, vaguely grey on the lateral thirds; tergites 2-6 dark velvety brown, with large, roughly rectangular, sublateral grey patches which extend from base about three-quarters the distance to apex; tergite 7 similar, but the spots just reaching the apex. Sternites grey, on segs. 2-6 with apical dark bands produced medially. Cerci rather pale brown, ninth sternite orange-brown.

*Specimens seen:* N.S.W. Sawpit Ck., Mt. Kosciusko, 4,000', 11.xii.1931. 1 ♀.

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A male specimen in the collection has the wing markings greatly reduced, only their brown borders being clearly developed (Fig. 1d). Placed beside a female, with its strong wing pattern, it is at first difficult to believe them conspecific. However, Alexander's male specimen, with the markings faintly differentiated from the ground colour, shows that such sexual dimorphism is a characteristic feature of the species.

*Specimens seen: Victoria.* Mt. Dom-Dom (Black Spur), 22.x.1961, 1 ♀; Cement Ck., 27.x.1961, 1 ♂; both coll. D. H. Colless.

*Acknowledgement.*

I am indebted to Miss Neel Key for the figures of the wings.

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